

In The Specification:

Please amend paragraphs [0013], [0014], [0015], [0029], [0030], [0038] and [0039] as follows:

[0013] To achieve these and other advantages and in accordance with the purpose of the invention, as embodied and broadly described herein, the invention provides a diode structure. The diode structure comprises a first conductive type substrate, a second conductive type first well region, a first conductive type second well region, a second conductive type first doped region, a first conductive type second doped region and a second conductive type third doped region. The first well region is located within the substrate and the second well region is located within the first well region. The first doped region is located within the first well region and ~~detached from~~ not physically contacted with the second well region but adjacent to the surface of the substrate. Furthermore, the second doped region and the third doped region are located within the second well region and adjacent to the surface of the substrate. The second doped region is located between the first doped region and the third doped region but ~~detached from~~ not physically contacted with the first doped region and the third doped region. The first doped region and the second doped region are coupled to a drain terminal and the third doped region is coupled to a ground terminal.

[0014] This invention also provides a diode string structure. The diode string structure comprises a first conductive type substrate, at least two diode structures and a first shallow trench

isolation (STI) region. Furthermore, each diode structure comprises a second conductive type first well region, a first conductive type second well region, a second conductive type first doped region, a first conductive type second doped region and a second conductive type third doped region. The diode structures are located within the substrate. The first well region of each diode structure is located within the substrate and the second well region is located within the first well region. The first doped region is located within the first well region and ~~detached from~~ not physically contacted with the second well region but adjacent to the surface of the substrate. Furthermore, the second doped region and the third doped region are located within the second well region and adjacent to the surface of the substrate. The second doped region is located between the first doped region and the third doped region but ~~detached from~~ not physically contacted with the first doped region and the third doped region. The first shallow trench isolation structure is located between neighboring diode structures and adjacent to the surface of the substrate. In addition, the third doped region of each diode structure is coupled to the first doped region and the second doped region of the following diode structure.

[0015] This invention also provides an alternative diode string structure. The diode string structure comprises a first conductive type substrate, a second conductive type first well region, at least two diode structures, a second conductive type first doped region and a first shallow trench isolation region. Each diode structure comprises a first conductive type second well region, a first conductive type second doped region and a second conductive type third doped region. The first well region is located within the substrate. The diode structure is located

within the first well region and the second well region of the diode structure is located within the first well region. Furthermore, the second doped region and the third doped region are located within the second well region and adjacent to the surface of the substrate but the second doped region and the third doped region are ~~detached from~~ not physically contacted with each other. Moreover, the first doped region is located within the first well region at the starting terminal of the diode string structure and ~~detached from~~ not physically contacted with the second well region but adjacent to the surface of the substrate. In addition, the first shallow trench isolation region is located between neighboring diode structures and adjacent to the surface of the substrate. The third doped region of each diode structure is coupled to the second doped region of a later stage diode structure.

[0029] The second conductive type doped region 206 is located within the second conductive type well region 202 and ~~detached from~~ not physically contacted with the first conductive type well region 204 but adjacent to the surface of the substrate 200. The second conductive type doped region 206 is an n^+ doped region, for example.

[0030] The first conductive type doped region 208 and the second conductive type doped region 210 are located within the first conductive type well region 204. The two doped regions (208 and 210) are adjacent to the surface of the substrate 200. Furthermore, the first conductive type doped region 208 is located between the second conductive type doped regions 206 and 210 but ~~detached from~~ not physically contacted with them. The first conductive type doped region

208 is a p^+ doped region and the second conductive type doped region 210 is a n^+ doped region, for example.

[0038] The first conductive type doped region 308 and the second conductive type doped region 310 are located within the first conductive type well region 304. The two doped regions 308 and 310 are adjacent to the surface of the substrate 300 but ~~detached from~~ not physically contacted with each other. The first conductive type doped region 308 is a p^+ doped region and the second conductive type doped region 310 is an n^+ doped region, for example.

[0039] The second conductive type doped region 306 is located within the second conductive type well region 302 at the starting terminal of the diode string. The second conductive type doped region 306 is adjacent to the surface of the substrate 300 but ~~detached from~~ not physically contacted with the first conductive type well region 304. The second conductive type doped region 306 is a n^+ doped region, for example.